

SHIMAYEV, R.F.

Corrosion and heat resistant filters for the petroleum, petrochemical,
and gas industries. Mash. i. nef. obr. no. 5:12.22 '62.

(MIRA 17:6)

L 57725-65 EWP(=)/EWT(m)/EWP(w)/EWA(d)/T/EWP(t)/EWP(k)/EWP(z)/EWP(h) P: 4 D
 ACCESSION NR: AR5015172 UR/0137/65/000/005/G039/C039 38
 29
 B

SOURCE: Ref. zh. Metallurgiya, Abs. 5G232

AUTHOR: Yukin, G. I.; Shibryayev, B. F.; Soluyanov, Ye. K.; Volgin, V. I.

TITLE: Application of induction heating in powder metallurgy

CITED SOURCE: Tr. 7 Vses. nauchno-tekhn. konferentsii po poroshk. metallurgii.
 Yerevan, 1964, 122-131

TOPIC TAGS: powder metallurgy, induction heating, filter material, powder metal,
 low carbon steel, reduction, reducing annealing, annealing

TRANSLATION: An investigation has been made of the possibility of using an
 induction heater for reducing annealing of sprayed powders made of low carbon
 steel and for sintering of filter elements. Reducing annealing of powders was
 carried out in a special apparatus with a type LG-61 or LPZ-67 generator.
 Hydrogen with a dew point of from -20 to -25° was the reducing agent. The
 optimum temperature for reducing annealing was 800°. Reducing annealing of
 powders with fine fractions (less than 0.2 mm) is difficult; therefore, reducing
 annealing should be used for a mixture of fine and coarse powders. An apparatus

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has been developed for the reducing annealing of metallic powder. The proposed capacity of the installation is 100 kg/hr, the cost of reducing one kilogram of powder is approximately 2.2 kopeks. In the sintering of filter elements, a uniform density distribution is essential. Nonuniform density of the briquet causes local overheating and the formation of fissures and fusing. The speed of heating and of cooling after sintering must be controlled strictly. Use of polyvinyl alcohol as a plasticizer instead of paraffin permits increasing the heating speed 4 times. Filter elements sintered in an induction heater are not inferior to filters sintered under conventional conditions, and even exceed them in mechanical strength. V. Kvin.

SUB CODE: MM

ENCL: 00

JD
Card 2/2

ACCESSION NR: AP4020045

S/0032/64/030/003/0313/0314

AUTHOR: Shibryayev, B. F.

TITLE: Estimating corrosion resistance of porous powder metal materials

SOURCE: Zavodskaya laboratoriya, v. 30, no. 3, 1964, 313-314

TOPIC TAGS: powder metal, porous material, corrosion resistance, tensile strength, low carbon steel, powder metallurgy, filter

ABSTRACT: It is proposed that the corrosion resistance of powder metal filters may be estimated from the change in their mechanical properties. Figure 1 of the Enclosure shows an apparatus for testing these materials in a corrosive medium. A filter element (1) is fixed in a testing container (2). Corrosive liquid is forced by a pump (3) through valve (4), through (2), then through (1). The liquid continues through valve (5) into rotameter (6) and finally into container (7). The drop of pressure across the filter element is measured with manometers (8) and (9). Manometer (10) measures the pump pressure. Air is evacuated from (2) through valve (11). By closing valve (4) and opening valve (12) it is possible to bypass the filter element. After being subjected to the liquid in this apparatus, the elements are tested mechanically under hydraulic pressure. For disk-

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shaped elements tensile strength σ is calculated from formula $\sigma = (0.19 \times D^2 \times p) / S^2$, where D is the internal diameter of the pressure vessel in cm; S is the thickness of the filter in cm; p is pressure at failure in kg/cm². Sleeve filters are hydraulically tested by a method used for pipes. If P (the breaking load of the material) is known, then $\sigma_1 = (P_1 \times D_{ex}) / 2S$ for externally applied pressures and $\sigma_2 = (P_2 \times D_{av}) / 2S$ for internal pressure, where D_{ex} and D_{av} are the external and mean diameter of the sleeve in cm and S is wall thickness in cm. Prior to determining the breaking load either the external or the internal wall of the sleeve was covered with a thin layer of rubber. The strength of the disk-shaped elements exposed to corrosion in a 2% HNO₃ solution for 1, 2, 3, 5, and 7 hours was 375, 300, 270, 210, 150, and 126 kg/cm². These elements were made of low-carbon-steel powder (0.8-1 mm fraction) under a pressure of 4 T/cm². The strength of 50 x 3-mm elements made of low-carbon steel, treated with chromium, and tested in a 2% HNO₃ solution for 0, 5.5, 11, 20, and 50 hours was 670, 550, 440, 330, and 260 kg/cm². It can be seen from these data that the corrosion resistance of powder metal filters may be indirectly estimated by measuring their strength. Orig. art. has: 3 formulas, 2 figures.

Card 2/4

SHIBRYAYEV, B.F.

Evaluation of corrosion resistance of porous ceramic metal
materials. Zav.lab. 30 no.3:313-314 '64. (MIRA 17:4)

1. Spetsial'noye konstruktorsko-tehnologicheskoye byuro po
metallokeramicheskim fil'tram.

L 07977-67 EWP(a)/EWI(m)/EWP(t)/ETI/EWP(k) LJP(c) JD/WH/HW/JG/WB/WH
ACC NR: AP6028578 SOURCE CODE: UR/0314/66/000/008/0013/0015

AUTHOR: Shibryayev, B. F. (Candidate of technical sciences)

ORG: None

TITLE: Cermet filtering elements for cleaning aggressive liquids and hot gases

SOURCE: Khimicheskoye i neftyanoye mashinostroyeniye, no. 8, 1966, 13-15

TOPIC TAGS: cermet, filtration, gas filter, porous metal

ABSTRACT: The author discusses the use of cermet filter cores made from special corrosion-resistant and high-temperature metals and alloys such as Kh18N9 chrome-nickel stainless steel, nickel and titanium for high-quality filtration of aggressive liquids and hot gases. Stainless steel filters lose their strength due to oxidation in the 450-800°C range. The strength of this type of filter core is reduced by 20% when held at 800°C for 3 hours and by 30% after 20 hours of holding at the same temperature. In spite of this, cermet filters made from stainless steel are recommended for use in an oxidative atmosphere at temperatures below 800°C. Corrosion tests of nickel filters showed a reduction in productivity in air by 25% after 20 hours holding at 800°C. The breaking pressure under these same conditions is reduced by 15%. Porous titanium holds its properties in air at 450°C for 100 hours. If these filters are held at higher temperatures their properties deteriorate, e. g. titanium filtering elements held for

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UDC; 66.067.3;621.762;54-32

L 01911-51

ACC NR: AP6028578

2

3 hours at 600°C show a weight increase of 13%, a reduction in productivity by 15% and a reduction in bursting pressure by 50%. Cermet filter cores may be made from stainless steel, nickel and titanium by both the static and hydrostatic pressing methods. The properties of filtering elements made by the static pressing method change with height and therefore elements with a height to external diameter ratio of less than 2.5 should be used. The properties of filtering elements made by the hydrostatic pressing method are constant with respect to the height. The elements may be installed by argon-arc or diffusion welding or by using special adhesives. The filters may be made in any shape and size. Orig. art. has: 1 figure, 1 table.

SUB CODE: 13, 11/ SUBM DATE: None

Card 2/2 *hph*

L 10353-67 EWP(e)/EWT(m)/EWP(k)/EWP(t)/ETI IJP(c) JD/HW

ACC NR: AP6015353

(N)

SOURCE CODE: UR/0226/66/000/005/0074/0079

37
36

AUTHOR: Shibryayev, B. F.

ORG: SKTB-MF

TITLE: The effects of manufacturing technology on the uneven vertical distribution of properties in sintered filtering elements

SOURCE: Poroshkovaya metallurgiya, no. 5, 1966, 74-79

TOPIC TAGS: sintered metal, filter, steel alloy, industrial filter, metal pressing, stainless steel/ OKh18N9/steel alloy

ABSTRACT: The effects of pressing method (static and hydrostatic) and of pressing regime on the vertical distribution of properties (density, porosity, size of pores; etc) in sintered filtering elements were investigated. Forty-millimeter diameter cylindrical filtering elements with 3-mm thick walls were pressed, using spherical and uneven stainless steel (OKh18N9) particles in two size ranges (0.1--0.2 and 0.315--0.4-mm diameter). The changes in vertical density distribution were measured as a function of filter height (45--125 mm), specific pressing load (30--40 kn/cm²), and duration of pressing load (1--60 sec) on statically pressed specimens (pressed from both sides). Curves are presented to show that specific load and load duration have insignificant effects on density distribution, while the local density increases and the density gradients decrease with decreasing filter length. Specimens of the same

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ACC NR: AP6015353

diameter but 100, 135, and 360 mm high were hydrostatically pressed at specific pressures of 1000, 1500, and 2000 dynes/cm². Under these conditions the density was found to vary less than 0.6%, regardless of specimen height. Some other effects are discussed qualitatively. Orig. art. has: 3 tables and 2 figures.

SUB CODE: 13/ SUBM DATE: 06Aug65

porous metal 18

Card 2/2^{b/p}

S/196/62/C00/010/018/035
E073/E155

AUTHORS:

Kudryashev, L.I., and Shibrayev, Ye.V.

TITLE:

Application of the generalized theory of thermal regularity for determining the heat-transfer coefficient during blasting of bodies of complicated configurations

PERIODICAL:

Referativnyy zhurnal, Elektrotekhnika i energetika, no.10, 1962, 3, abstract 10 G13. (Tr. Kuybyshevsk. aviats. in-t, no.12, 1961, 83-92)

TEXT:

An analytical proof is given of the existence of a "regular thermal regime" for the case of a multicomponent inhomogeneous system. In the proof the authors do not utilise the method of sub-division of the variables; it is unsuitable for solving nonlinear differential equations of the process of cooling of a system when the thermo-physical properties of the materials are variable. The experiments, carried out on a specially assembled test set-up, have fully confirmed the existence of the regularity of the system as a whole if its

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Application of the generalized ... S/196/62/000/010/018/035
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component parts are regular. Thus, the theoretical assumptions
formulated in the paper can be considered as proved.

[Abstractor's note: Complete translation.]

Card 2/2

~~SHIBRYAYEV F.~~

The TSiurupa Combine curing 40 years of Soviet rule. Muk.-elev.prom.
23 no.5:19-22 My '57. (MIRA 10:9)

1. Direktor Moskovskogo mel'nichnogo kombinata imeni TSyuruny.
(Moscow--Flour mills)

CHIRCO, . . .; SECRET, L.S.

Some derivatives of phenanthrene. Part 2. Zhur. VZhG 5
no. 1345 '66. (LIRA 14:2)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov
i krasiteley imeni K.Ye. Voroshilova.
(Phenanthrene)

BOGDANOV, S.V.; SHIBRYAYEVA, L.S.

Hydroxy derivatives of phenanthrene. Part 1: 1-Nitroso-
2-phenanthrol and its bisulfite compound. Zhur.ob.khim. 30
no.7:2229-2235 J1 '60. (MIRA 13:7)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov
i krasiteley imeni K.Ye. Voroshilova.
(Phenanthrol)

BOGDANOV, S.V.; SHIBRYAYEVA, L.S.

Hydroxy derivatives of phenanthrene. Part 2: Some products of the conversions of the bisulfite compounds of 1,2-phenanthro-(3',4')-furoxan. Zhur. ob. khim. 31 no. 2:522-528 F '61.

(MIRA 14:2)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley imeni K.Ye. Voroshilova.
(Furoxan) (Phenanthrene)

BOGDANOV, S.V.; SHIBRYAYEVA, L.S.

Hydroxy derivatives of phenanthrene. Part 3: 1,2-phenanthrene-quinone-2-oxime and 3,4-phenanthrenequinone-3-oxime. Zhur. ob. khim. 33 no.5:1529-1532 My '63. (MIRA 16:6)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov i krasiteley.
(Phenanthrenequinone) (Oximes)

BOGDANOV, S.V.; SHIBRYAYEVA, L.S.

Hydroxy derivatives of phenanthrene. Part 4: Bisulfite compounds
of 4'-sulfonophenylazo-2- and -3-phenanthrols. Zhur. ob. khim.
33 no.5:1532-1536 My '63. (MIRA 16:6)

1. Nauchno-issledovatel'skiy institut organicheskikh polupro-
duktov i krasiteley.
(Phenanthrol) (Azo dyes)

BOGDANOV, S.V.; SHIBRYAYEVA, L.S.

Hydroxy derivatives of phenanthrene. Part 5:
9.10-Phenanthrenequinone-1,2-furazan and products of its reduction.
Zhur.ob.khim. 33 no.6:1978-1979 Je '63. (MIRA 16:7)

1. Nauchno-issledovatel'skiy institut organicheskikh poluproduktov
i krasiteley.

(Phenanthrenequinone) (Furazan)

ARUTYUNOV, G.A.; ANTUF'YEV, I.I.; VOROB'YEV, A.I.; KUZNETSOV, M.I.;
UDALOV, Yu.F.; SHIBUNEYEV, A.G. (Moskva)

Effect of nervous strain on requirement of the body for some
vitamins. Vop.pit 21 no.4:3-10 J1-Ag '62. (MIRA 15:12)
(VITAMINS) (FATIGUE, MENTAL) (STRESS(PHYSIOLOGY))

UDALOV, Yu.F.; SHIBUNYEV, A.G.

Effect of nervous stress on some metabolic functions in the human
body. Biul. eksp. biol. i med. 56 no.11:61-64 O [i.e. N] '63.
(MIRA 17:11)

1. Predstavlena daystvitel'nyy chlenom AMN SSSR V.V. Parinym.

I 15776-66 ARG/EWT(d)/FBD/FBO/EEG(k)-2/EWP(c)/EWP(h)/FCS(k)/EWA(h)/FBA/ETC(m)-6
ACC NR: AN6006651 JKT/TT/WW (N) SOURCE CODE: UR/9008/66/000/045/0003/0003

AUTHOR: Shichalin, A. (Lieutenant colonel); Udovichenko, Ye. (Lieutenant colonel)

ORG: none

TITLE: Underground launching

SOURCE: Krasnaya zvezda, no. 45, 1966, 3, col. 1-7

TOPIC TAGS: missile, strategic missile, missile site, missile complex, missile control center, missile firing, missile launching, hardened missile site, guided missile personnel

ABSTRACT: The article is a commentary on a visit to an underground strategic missile launch site. Very general descriptions of the command posts, electronic and other equipment, layout, personnel, functions, and missile-servicing techniques are given. A firing exercise involving the launching of one of the site's missiles is mentioned. Orig. art. has: 2 figures. [LH]

SUB CODE: 16/ SUBM DATE: none/ ATD PRESS: 4200

SHICHANINA, K.M.

For more extensive application of advanced practices in corn growing. Zemledelia 7 no.4:65-68 Ap '59. (MIRA 12:6)

1. Glavnyy agronom Brestskogo oblastnogo upravleniya sel'skogo khozyaystva. (Corn(Maize))

IVANISHCHENKO, G. (g. Poltava); SHICHKIN, A. (g. Poltava)

Raw brick is fed into the kiln by a feed belt. Prom.koop. 14
no.9:13 S '60. (MIRA 13:9)

1. Nachal'nik Konstruktorsko-tehnologicheskogo byuro oblprom-
soveta (for Ivanishchenko). 2. Starshiy inzh.-tekhnolog Konstruk-
torsko-tehnologicheskogo byuro oblpromsoveta (for Shichkin).
(Brickmaking machinery) (Conveying machinery)

SHICHKIN, K.A., professor.

A useful book on the history of the development of Soviet locomotives ("Locomotives of the Soviet Union's railroads." V.A. Rakov. Reviewed by K.A. Shishkin.). Zhel.dor.transp. 37 no.6:94-96
Je '56. (MIRA 9:8)
(Locomotives) (Rakov, V.A.)

SHICHKO, G.A.

Ink recording on the kymograph ribbon. Fiziol.zhur.40 no.1:102-
104 Ja-F '54. (MIRA 7:2)

1. Otdel vozrastnoy fiziologii i patologii v.n.d. cheloveka
Instituta eksperimental'noy meditsiny, Leningrad.
(Medical instruments and apparatus)

CHERNY, S. A.

CHERNY, S. A.: "The problem of the higher nervous activity of the adult human."
Acad Med Sci USSR. Inst of Experimental Medicine. Physiology Department
Imeni Akademika I. P. Pavlov. Leningrad, 1956. (Dissertation for the
Degree of Candidate in Biological Science.)

'Knishnara letopis', No. 30, 1956. Moscow.

371-1226

USSR/Human and Animal Physiology - Nervous System.

V-12

Abs Jour : Ref Zhur - Biol., No 1, 1958, 4466

Author : G.A. Shichko

I. :

Inst : Institute of Experimental Medicine, Academy of Medical
Sciences USSR

Title : Development of Conditioned Lid Movement Reflexes to
Slight (indifferent) Eye Stimulation by Air Current.

Orig Pub : Collected Papers Yezhegodnik, Inst. eksperim. med. Akad.
med. nauk SSSR, 1955, L., 1956, 54-58

Abstract : Four tests were made designed to develop conditioned
eye lid movement reflexes (CLMR) to light, sound and
slight air stimuli applied to the cornea (4-8 mm mercur-
y column). A strong air current applied for five se-
cond (100 - 150 mm, mercury column) served as reinforce-
ment. Intervals were of 1 to 10 seconds duration.

Card 1/2

SHICHKO, G.A.

Easy method for recording physiological reactions with ink. Device for
the prolonged recording of physiological reactions. Vop.psikhol.2
no.5:181-183 S-0 '56. (MIRA 10:1)
(Physiological apparatus)

SHICHKO, G. A. Cand Biol Sci -- (diss) "On the problem of the higher nervous activity of adult humans." Len, 1958. 15 pp (Acad Med Sci USSR. Inst of Experimental Medicine. Physiological Department im Academician I. P. Pavlov), 100 copies (KL, 13-58, 95)

-43-

SHICHKO, G.A.

Formation of temporary connection by means of successive coupling
of certain indifferent stimuli. Zhur.vys.nerv.deiat. 9 no.4:516-
525 J1-Ag '59. (MIRA 12:12)

1. Fiziologicheskiiy otdel im. I.P. Pavlova Instituta eksperimental'noy
meditsiny AMN SSSR.
(REFLEX CONDITIONED)

SHICHKO, G.A.

Dosage of an air jet during the production of conditioned blinking reflexes. Zhur. vys. nerv. deiat. 9 no.6:939-940 N-D '60.

(MIRA 13:9)

1. Pavlov Physiology Department, Institute of Experimental Medicine,
U.S.S.R. Academy of Medical Sciences, Leningrad.

(CONDITIONED RESPONSE)

(PHYSIOLOGICAL APPARATUS)

SHICHKO, G.A.

Formation of conditioned reflexes of a high order in adult subjects. Zhur.vys.nerv.deiat. 12 no.1:30-36 Ja-F '62.
(MIRA 15:12)

1. Pavlov Physiology Department, Institute of Experimental Medicine, U.S.S.R. Academy of Medical Sciences, Leningrad.
(CONDITIONED RESPONSE)

SHICHKO, G.A.

Improved variant of the Ganike-Kupalova device. Zh. vyssh.
nerv. deiat. Pavlov 13 no.3:572-575 '63. (MIRA 17:9)

1. Fiziologicheskii otdel im. I.P. Pavlova Instituta eksperi-
mental'noy meditsiny AMN SSSR.
(PHYSIOLOGY) (SALIVA) (EQUIPMENT AND SUPPLIES)

NOZDRACHEV, A.D.; SYRENSKIY, V.I.; SHICHKO, G.A.

Size of the dog brain before and after its fixation by perfusion of the cerebral vessels with a 10% formalin solution. Biul. eksp. biol. i med. 56 no.9:120-122 S '63.

(MIRA 17:10)

1. Iz fiziologicheskogo otdela imeni Pavlova (zav. - deystvitel'nyy chlen AMN SSSR prof. P.S. Kupalov) Instituta eksperimental'noy meditsiny (dir. - deystvitel'nyy chlen AMN SSSR prof. D.A. Biryukov), Leningrad. Predstavlena deystvitel'nyy chlenom AMN SSSR P.S. Kupalovym.

KUPALOV, Petr Stepanovich [deceased]; VOYEVODINA, Ol'ga Nikolayevna;
VOLKOVA, Valentina Dmitriyevna; MALYUKOVA, Irina Vasil'yevna;
SELIVANOVA, Al'bina Timofeyevna; SYRENSKIY, Valeriy Ivanovich;
KHANANASHVILI, Mikhail Mikhaylovich; SHICHKO, Gennadiy
Andreyevich; BERKENBLIT, Z.M., red.

[Situational conditioned reflexes in normal dogs and in
pathology] Situatsionnye uslovnye refleksy u sobak v norme i
patologii. Leningrad, Meditsina, 1964. 274 p.

(MIRA 17:8)

SHCHIKO, A.A.; SYRENSKIY, V.I.; NOZDRACHEV, A.D. (Leningrad)

Method for fixation of the brain through the blood vessels. Arkh.
pat. 26 no.9:71-74 '64. (MIRA 18:4)

1. Fiziologicheskiy otdel imeni Pavlova (zav. - deystvitel'nyy
chlen AMN SSSR prof. P.S.Kupalov) Instituta eksperimental'noy
meditsiny AMN SSSR.

SHICHKO, G.A.

Mechanism of the formation of conditioned response. Zhur. vys. nerv.
deiat. 15 no.2:318-324 Mr-Apr '65.

(MIRA 18:5)

1. Fiziologicheskiiy otdel imeni I.P. Pavlova Instituta eksperiment-
tal'noy meditsiny AMN SSSR, Leningrad.

ABULADZE, K.S.; PIKAL', A.V.; KHARCHENKO, P.D.; SHIGKO, G.A.

Iosif Sergeevich Rozental'; 1884-1965; obituary. Zhur. vys.
nerv. deiat. 16 no. 1: 185-187 Ja-F '66 (MIRA 19:2)

SHICHKO, I.

Economic work practice. Den. i kred. 19 no.8:66-70 Ag '61.
(MIRA 14:9)

1. Upravlyayushchiy Moskovskim otdeleniyem Gosbanka Leningrada.
(Leningrad--Banks and banking) (Industrial management)

SHICHKO, V.V.

Manufacturing mosaic products without polishing. Shakht.stroi.
no.3:29-30 Mr '57. (MLRA 10:7)

(Tiles)

ROZANOV, V.G.; SHIDAREV, I.M., red.; ORLOVA, V.V., tekhn. red.

[DT-54 tractor] Traktor DT-54. Moskva, Gos. izd-vo sel'khoz. lit-ry,
1951. 267 p. (MIRA 11:8)

(Tractors)

SHIDAREV, I.M.

ORLOV, Pavel Mikhaylovich, doktor tekhnicheskikh nauk; SHIDAREV, I.M.,
redaktor; FEDOTOVA, A.F., tekhnicheskiiy redaktor.

[Land surveying (geodesy)] Zemlemerie (geodeziia) 2. izd., ispr.1
dop. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1953. 337 p. (MLRA 7:5)

1. Professor Moskovskoy ordena Lenina sel'skokhozyaystvennoy akademii
imeni K.A.Timiryazeva. (Geodesy)

SHIDAREV, I.M.

SHIDAREV, I.M.; FOMIN, I.T., inzhener, retsenzents; IVANOV, M.Ye, inzhener, retsenzents; MANAKIN, N.V., inzhener, redaktor; TIKHONOV, A.Ya, tekhnicheskii redaktor

[Mechanical drawing] Cherchenie. Moskva, Gos. nauchn.-tekhn. izd-vo mashinostroit. i sudostroit. lit-ry, 1954. 349 p. (MLRA 7:9)
(Mechanical drawing)

SITKOVSKIY, P.A.; SHIDAREV, I.M., red.; BALLOD, A.I., tekhn. red.

[Organization and performance of hydraulic engineering operations for land improvement purposes] Organizatsiia i proizvodstvo gidromeliorativnykh rabot. Moskva, Gos. izd-vo sel'khoz. lit-ry, 1950. 279 p. (MIRA 15:4)
(Hydraulic engineering)

NAZARYAN, Ye.A.; LOBANOV, G.A.; TRUSEVICH, G.V.; STEPANOV, S.N.; DUSHUTINA,
K.K.; RYBAKOV, A.A.; KARANYAN, P.G.; UL'YANISHCHEVA, A.M.; TIKHONOV,
N.N.; KAZIZADE, F.N.; SIDERENKO, I.I.; SMIRNOV, V.F.; ~~SHIDENKO~~,
I.Kh.; VASIL'YEV, V.P.; SHISHKOVA, M.I.; SERGEYEV, V.I., red.;
GOR'KOVA, Z.D., tekhn.red.

[Grusha] Pear. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 534 p.
(MIRA 13:12)

(Pear)

SHIDENKO, I.Kh., kand.sel'skokhoz.nauk

Pear breeding in the Ukraine. Agrobiologiya no. 3:437-442
My-Je '64. (MIRA 17:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut sadovodstva,
Kiyev.

KAMENOV, Il., inzh.; VASILEVA, Ves., inzh.; SHIDEROVA, R.,
inzh.

Some data on the composition of waste water from Bulgarian
flotation enterprises. Min delo 18 no. 12: 23-24 D '63.

1. "Niproruda".

SHIDFAR, B. Ya.

Dissertation defended for the degree of Candidate of Historical Sciences at the
Institute of the Peoples of Asia

"The Historian and Philosopher of the X-XI Centuries Ibn Miskaveykh and His Times."

Vestnik Akad. Nauk, No. 4, 1963, pp 119-145

18.3200

78180
SOV/133-60-3-5/24

AUTHORS: Leykin, I. M. (Candidate of Technical Sciences),
Sabiyev, M. P., Shidkov, V. A. (Engineers)

TITLE: Production of Low Alloy Steels 19G and 14KhGS Without
Reduction by Silicon in the Furnace

PERIODICAL: Stal', 1960, Nr 3, pp 216-219 (USSR)

ABSTRACT: This is a report concerning test melts conducted by
the personnel of the Central Scientific Research Institute
of Ferrous Metallurgy (TsNIICHM) and the Alchevskiy
Metallurgical Plant (Alchevskiy metallurgicheskiy zavod
in Voroshilovsk). A series of test melts of 14KhGS and
19G steels were made in the furnaces with chromium
magnesite roof, fired by mixed gas. The furnaces worked
on scrap-ore process with two stage drawing off of slag.
13.5 ton ingots were produced by bottom pouring; 14.5
ton ingots by direct pouring. The reduction took place
in the ladle. The change of chemical content of tested
steels in the course of test pouring was as follows:

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Production of Low Alloy Steels 19G and
14KhGS Without Reduction by Silicon in
the Furnace

78180
SOV/133-60-3-5/24

steel 14KhGS: 0.10-0.14% C; 0.85-1.00% Mn; 0.53-0.66% Si; 0.017-0.030% P; 0.026-0.039% S; 0.44-0.54% Cr. Steel 19G: 0.16-0.20% C; 0.94-1.03% Mn; 0.27-0.34% Si; 0.021-0.034% P; 0.025-0.043% S. The authors arrived at the following conclusions: (1) The investigated method of reduction of steels 14KhGS and 19G (without introducing silicon into the furnace) permits a noticeable decrease in the consumption of manganese-silicon and a decrease of expenses for reducer. (2) With the increase of the degree of utilization of manganese and silicon (introduced with ferroalloys), the specific consumption of manganese was reduced by 8.8% and that of silicon by 37%. (3) The reduction of metal in the furnace by ferromanganese produces only steel with reduced phosphorus content (in the test melts the average phosphorus content was 30% less than in regular melts). (4) During reduction of steel in the ladle, a uniform distribution of elements over the whole volume of metal takes place, accompanied by some decrease in hydrogen content. A special feeder is recommended for

Card 2/3

Production of Low Alloy Steels 19G and
14KhGS Without Reduction by Silicon in
the Furnace

78180
SOV/133-60-3-5/24

introduction of reducers into the ladle. This feeder gives means to control the amount of admixtures fed into the ladle per unit time. (5) Due to the cooling effect of sizeable admixtures of ferroalloys, the metal before tapping should have a temperature 10°C higher than usual. (6) The total content of nonmetallic inclusions in test steels proved to be lower than in regular melts. (7) The impact strength of sheets made from test melts of 14KhGS and 19G steels at room temperature and at reduced test temperatures, as well as after aging, is not lower than that of sheets made from regular melts. There are 4 tables.

ASSOCIATION: TsNIICHM and Alchevskiy Metallurgical Plant (TsNIICHM
i Alchevskiy metallurgicheskiy zavod)

Card 3/3

ACC NR: AP5025695

SOURCE CODE: UR/0286/65/000/018/0043/0044

INVENTOR: Svecharnik, D. V.; Rotinyan, M. I.; Shidlovich, L. Kh.; Pavlenko, V. A.;
Kelim, Yu. M.

ORG: none

TITLE: Servosystem driven with d-c signals [Announced by the Scientific Research
Institute of Heat- and Power-Engineering Equipment, (Nauchno-issledovatel'skiy institut
teploenergeticheskogo priborostroyeniya). Class 21, No. 174687

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 43-44

TOPIC TAGS: signal processing, signal analysis, data processing equipment

ABSTRACT: This Author Certificate introduces a servosystem driven with d-c signals
(see figure). For simplicity and improved reliability, the stator winding of the

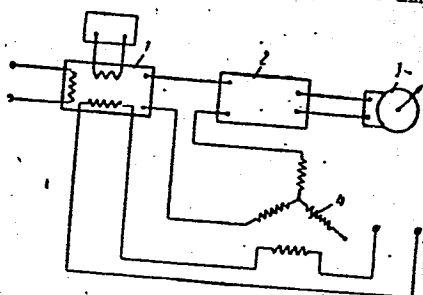


Fig. 1. Signal converter

- 1 - Push-pull magnetic modulator;
- 2 - a-c power amplifier; 3 - re-
- versible motor; 4 - feedback pickup.

Card 1/2

UDC: 62-503.53
62-523.2

09010784

E 5311-66

ACC NR: AP5025695

transmitting selsyn and the supply winding of the magnetic modulator are series
connected, while the winding of the selsyn is connected in series with the
modulator output. Orig. art. has: 1 figure. [DW]

SUB CODE: 1E,EE SUBM DATE: 18May64/ ATD PRESS: 4/35

Card 2/2

SHIDLOVSK, Petr S.

[N.I.Pirogov as surgeon and anatomist] N.I.Pirogov kak khirurg
i anatom. München, Izdanie avtora, 1953. 26 p. (MLBA 6:11)
(Pirogov, Nikolai Ivanovich, 1810-1881)

GASTEVA, B.O.; KREL'SHTYIN, B.I.; LYAPIN, S.Ye.; SHIDLOVSKA, M.M.;
KOPERSAK, G.D., redaktor; MONZHERAN V.P., tekhnichnyi
redaktor

[Methods of teaching mathematics; a manual for teachers and students
in pedagogical schools] Metodyka vykladannia matematyky; posibnyk
dlia vchyteliv i studentiv pedagogichnykh instytutiv. Za zahal'noi
red. S.IE.Liapina. Pereklad s druhoho, vypravlenoho rosiis'koho
vydannia Uchpedhizu, zatverdzhano Ministerstvom osvity RRFSSR.
Kyiv, Derzh. uchbovo-pedagog. vyd-vo "Radiants'ka shkola," 1956.
467 p. (MIRA 10:2)

(Mathematics--Study and teaching)

BORISENKO, O.S., inzh.; SHIDLOVSKAYA, A.G., inzh.

Heat insulating materials made from a sprit base. Stroi. mat. 9
no.6:19 Je '63. (MIRA 17:8)

cd

Dipole moments of certain compounds of platinum. A. N. Shil'derovskaya and Ya. K. Byrtin (Lomonosov Inst. Fine Chem., Moscow). *Compt. rend. acad. sci. U.R.S.S.* 35, 231-2(1947) (in English).—Dipole moments of Me₃PtCl, Me₃PtBr, and Me₃PtI, as well as several complex compds. of bivalent Pt were measured. Electronic polarization was computed from at. refractions. For Pt a value of 8.88 cc. was adopted in accordance with data reported by Yakobin. On account of the poor soly. of the Me₃Pt-halogen compds., the error involved in the measurement of their dipole moment lies within ±0.15 D. The dipole moment is in the neighborhood of 1 D and the Pt-halogen bond is essentially covalent. The Pt in the investigated compds. is in the d⁸sp state. The expts. show that there is no significant polarity when the major part of the moment is localized in the Pt-halogen bond. J. E. H.

2

COMMON ELEMENTS
COMMON VARIABLES INDEX
CROSS SYNDICATE
MATERIALS INDEX
OPEN
METALLURGICAL LITERATURE CLASSIFICATION
ELECTROLYTE
CELLULOSE
SYNTHETIC CHEMISTRY

SHIDLOVSKAYA, A. N.

Shidlovskaya, A. N. and Syrkin, Ya. K. - The dipole moment of the molecular compound of m-dinitrobenzene and naphthalene", Trudy Mosk. in-ta tonkoy khim. tekhnologii in. Lomonosova, Issue 2, 1948, p. 3-9, - Bibliog: 5 items.

SO: U-3842, 11 March 53, (Ietopis 'Zhurnal ' nykh Stat y, No. 8, 1949).

LIST AND 2ND ORDERS																										PROCESSES AND PROPERTIES INDEX																										1ST AND 2ND ORDERS																									
<p>CA</p> <p>Dielectric polarization of binary systems. A. N. Shilovskaya and Ya. K. Syrkin. <i>Zhur. Fiz. Khim.</i> (J. Phys. Chem.) 22, 1013-19 (1948). --To obtain information on the effect of a dipole liquid on the orientation polarization of foreign dipoles, the dielec. const. ϵ of mixts. of acetone with benzene and 9 polar liquids was detd. The ϵ of the solvents at 25 \pm 0.05° was for benzene 2.271, dioxane 2.2271, diethyl ether 4.220 (dipole moment $\times 10^{18}$ in benzene 1.2), isoamyl acetate 4.780 (1.8), Et benzoate 5.080 (1.85), Et acetate 0.800 (1.81), diethyl malonate 7.871 (2.54), methyl salicylate 9.533 (2.40), isoamyl alc. 14.733 (1.8), and dimethylethylcarbinol 5.600 (1.7). Addn. of acetone increases ϵ within the concn. interval studied (the mole fraction f of acetone reached 0.11 to 0.41), except for isoamyl alc. in which ϵ passes through a max. (24.034) at $f = 0.2704$. The apparent orientation polarization P_a of acetone, calcd. from $fP_a = P_1 - (1-f)P_2$, P_1 and P_2 being the orientation polarizations of the soln. and the solvent, resp., is smaller in dipole liquids than in benzene, except for dioxane and dimethylethylcarbinol in which its extrapolation gives the same value as in benzene. The dipole moments of pure liquids can be calcd. by the equations of Onsager (C.A. 30, 7027) and Syrkin (C.A. 37, 2026) except for isoamyl alc. Extension of Syrkin's equation to mixts. gives correct results for acetone + isoamyl acetate but not for other mixts. Also other equations connecting P_a with the ϵ of the solvent are valid for some classes of solvents only.</p> <p style="text-align: right;">I. J. Birkman</p>																																																																													
<p>454 354 METALLURGICAL LITERATURE CLASSIFICATION</p> <p>100000 01</p> <p>100000 01</p> <p>100000 01</p>																																																																													

SHIDLOVSKAYA, A.N.; GOSTEV, M.I.; SYRKIN, Ya.K.

Dipole moments of pentachlorophenol derivatives. Doklady Akad. Nauk
S.S.S.R. 87, 101-3 '52. (MLFA 5:11)
(CA 47 no.13:6203 '53)

1. Institut tonkoy khimicheskoy tekhnologii imeni M.V. Lomonosova,
Moscow.

SHIDLOVSKAYA, A. N.
USSR.

✓ Dipole moments of some intermediate products in the
photochemical reaction of vitamin A. V. M. Kazakova, Yu. K. Syrkin,
and A. N. Shidlovskaya. *Bull. Acad. Sci. U.S.S.R., Div.
Chem. Sci.* 1954, 477-8 (Engl. translation).--Sec. C.A., 48,
13304i. H. L. H.

SHIDLOVSKAYA, A.N.

USSR/Chemistry Vitamins

Card : 1/1

Authors : Kazakova, V. M., Syrkin, Ya. K., and Shidlovskaya, A. N.

Title : Dipole moments of certain intermediate products from the synthesis of vitamin A (Brief report)

Periodical : Izv. AN SSSR, Otd. Khim. Nauk, 3, 562 - 563, May - June 1954

Abstract : The dipole moments of certain beta-ionone derivatives, which are intermediate products of vitamin A synthesis, were investigated and the dielectric constants in a phenol solution were determined at 25° by the heterodyne method. The results obtained are given in tables.

Institution : The M. V. Lomonosov Institute of Delicate Chemical Technology, Moscow

Submitted : February 16, 1954

SHIDLOVSKAYA, A. N.

5
(3)

Dipole moments of some divinylacetylenic hydrocarbons.

A. N. Shidlovskaya, Ya. K. Syrkis, and I. N. Nazarov.

Doklady Akad. Nauk S.S.S.R. 94, 906-7(1954).

The following dipole moments (in D.) were calcd. from dielec. data of solns. of the hydrocarbons in C_6H_6 at 25°: divinylacetylene 0.02, 5-methyl-1,5-hexadien-3-yne 0.51, 5-methyl-1,5-heptadien-3-yne 0.61, 5-phenyl-1,5-heptadien-3-yne 0.70, 4-(1-cyclohexen-1-yl)-1-buten-3-yne 0.80, 2,2-dimethyl-4-(vinylethynyl)-3,6-dihydro-2H-pyran 1.29, and dimethyl(vinylethynyl)carbinol 1.66. The difference between total polarization and electronic polarization for vinylacetylene was 1.019, which might be ascribed to at. polarization, in which case the moment of the compd. would be zero. If the at. polarization of the other substances is similar, the above values are 0.03-0.5 D. higher than real values, but definitely above zero. The ease of hydrogenation corresponds to the magnitude of the dipole moment found in this series. The phys. consts. of the substances were: resp.: b_{11} 84°, n_D^{20} 1.5035, d_{20} 0.7850; b_{11} 29°, 1.4970, 0.7950; b_{11} 41°, 1.5030, 0.8020; b_{11} 94°, 1.5042, 0.9575; b_{11} 83°, 1.5480, 0.9135; b_{11} 93°, 1.5275, 0.9441; and b_{11} 53°, 1.4775, 0.8920.

G. M. Kosolapoff

114
9-28-54

Shidlovskaya, A.N.

7

M.A. YOUTZ
2 copies

Dipole moments of alkyl 2-dialkylaminoethyl ketones.
A. N. Shidlovskaya, Ya. K. Syrkina, and N. K. Kochetkov
Chim. Vysokomol. Soedin. Inst. Fine Chem. Technol., Moscow
Izv. Akad. Nauk S.S.S.R., Khim. Nauk 1956,
251-6. The following values of dipole moments (in D.)
were detd. at 25° in C_6H_6 soln.: $MeCOCH_2CHNMe$, 5.07;
 $MeCOCH_2CHN(CH_3)_2$, 5.23; $MeCOCH_2CHNMe$, 5.06;
 $PrCOCH_2CHNMe$, 4.83; $iso-PrCOCH_2CHNMe$, 4.70;
the high polarity of the ketones is expected from their chem.
reactivity. G. M. Kosolapoff

[Handwritten signature]

[Handwritten initials: RM]

AUTHORS: Shidlovskaya, A. N., Syrkin, Ya. K.,
Nazarov, I. N., Sokolov, D. V.,

62-2-22/28

TITLE: The Dipole Moments of the Steric Isomers of 2-Methyl-4-Keto-Decahydroquinolines (Dipol'nyye momenty prostranstvennykh izomerov 2-metil-4-ketodekagidrokhinolinov)

PERIODICAL: Izvestiya AN SSSR Otdeleniya Khimicheskikh Nauk, 1958, Nr 2, pp. 241-241 (USSR)

ABSTRACT: The authors measured the dipole moments of the above-mentioned isomers which were synthesized by Sokolov. Dielectric polarizations were determined according to the heterodyne method in benzene solutions (at 25°C). The results of this work are given in table 1. Formulae, melting temperatures as well as an information on the investigated concentrations, the full polarizations. P_{∞} , orientation polarizations P_{or} and so on are also given in the table. The congruence of the moments of all isomers indicates the similar configurations of the polar groups (table 1). There is 1 table.

Card 1/2

The Dipole Moments of the Steric Isomers of 2-Methyl-4-Keto-
Decahydroquinolines

62-2-22/28

ASSOCIATION: Institute for Fine Chemical Technology imeni M.V. Lomonosov,
Moscow (Moskovskiy institut tonkoy khimicheskoy tekhnologii
im. M.V. Lomonosova)

SUBMITTED: October 1, 1957

AVAILABLE: Library of Congress

1. Dipole moments-Tables
2. 2-Methyl-4-Ketodecahydroquinolines-
Dipole moments

Card 2/2

AUTHORS: Shidlovskaya, A. N., Syrkin, Ya. K., Corresponding 20-118-5-33/59
Member of the AS USSR, Nazarov, I. N., Member of
the AS USSR, (Deceased), Kucherov, V. F.

TITLE: Dipole Moments of Ethers of the Isomeric Cyclohexane-1,2-Di-
carboxylic Acids (Dipol'nyye momenty efirov izomernykh
tsiklogeksan-1,2-dikarbonovykh kislot)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 118, Nr 5, pp. 967-969
(USSR)

ABSTRACT: Usually it is proceeded from the fact that the fauteuil-like
configuration with a maximum number of equatorial substituents
is the most stable. This assumption was chiefly confirmed by
the investigation of different cyclic compounds which have
methyl and hydroxyl groups as substituents. In this context
the investigation of such compounds is interesting which
have more strongly polar substituents (references 1,2). In
the series of the 1,2-substituted cyclohexanes 3 isomers are
possible: a cis-isomer with an equatorial-axial position of
the substituents ($\text{H} - \text{a}$), or a trans-isomer in a diequatorial
form ($\text{H} - \text{H}$) or in a diaxial form ($\text{a} - \text{a}$). Dipole moments of

Card 1/4

Dipole Moments of Ethers of the Isomeric Cyclohexane-1,2-Di- 20-118-5-33/59
carboxylic Acids

10 substances, derivatives of cyclohexane and cyclohexene, were measured. The tables 1 and 2 show: structural formulae, temperature constants, complex polarizations P_{∞} , electronic polarizations P_{El} , orientation polarizations P_{Or} , and dipole moments. The comparison of the latter of the isomers of the cyclohexane and cyclohexene derivatives showed that the double linkage causes only slight changes of the moment for the cis-form as well as for the trans-form. The dipole moments of the isomers of the monomethylether of the cyclohexane-1,2-dicarboxylic acid are decreased as compared to dimethylether. Perhaps this can be explained by the formation of an intramolecular hydrogen linkage between the oxygen of the carbonyl group and the hydrogen of the O-H group. It is interesting to compare the dipole moments of the isomers of the methylethers of the cyclohexanedicarboxylic acid with those of the ethers of unsaturated dicarboxylic acids (for example the diethyl ether of maleic and fumaric acid). The difference in the radicals of the ether group is said to have no noticeable influence on the value of the moments. As is shown in publications (reference 3) the dipole moment of the ether of

Card 2/4

Dipole Moments of Ethers of the Isomeric Cyclohexane-1,2-Di- 20-118-5-33/59
carboxylic Acids

maleic acid is greater than of that of fumaric acid. This is moreover confirmed by the cis-configuration of the compound number 3 (table 1). Table 2 shows moments of molecules which differ from those treated above by having an additional methyl group at C₄. As could be expected for the isomers 1 and 2 equal values of the moments were obtained, as the moment of the CH₃-group is equal to that of the C-H group.

The isomers 3 and 4 have somewhat greater moments. Isomer 4 is also the most stable. All other isomers are finally transformed into isomer 4. Contradictory to the formula (references 4-6) the authors maintain that for substituents of the type of ethers of the cyclohexane-1,2-dicarboxylic acids which contain irregular groups the moment of the diaxial isomer (a-a) may not be set equal to zero. In order to determine the configuration of the isomers of the dimethylethers of cyclohexane-1,2-dicarboxylic acid the dipole moments were computed by assuming a free rotation of the COOCH₃ groups, taking into consideration their direction as irregular groups in relation to the cyclohexane nucleus. The moment of the isomer a-a was determined as 2,30 D. The experimental value of the moment

Card 3/4

Dipole Moments of Ethers of the Isomeric Cyclohexane-1,2-Di- 20-118-5-33/59
carboxylic Acids

of the cis-isomer lies between the computed values 2,51 -
- 2,30 D. The experimental moment of the trans-isomer (=2,14)
does not correspond to the computed value of the moment of
the isomer Δ - Δ if a free rotation is assumed. There are 2
tables and 9 references, 2 of which are Soviet.

ASSOCIATION: Moskovskiy institut tonkoy khimicheskoy tekhnologii im.
M. V. Lomonosova (Moscow Institute for Refined Chemical
Technology imeni M. V. Lomonosov)

SUBMITTED: October 1, 1957

Card 4/4

81417

S/020/60/132/06/42/068
B004/B005

5.4/30
AUTHORS:

Shidlovskaya, A. N., Syrkin, Ya. K., Corresponding Member
AS USSR, Novikov, S. S., Faynzil'berg, A. A.,
Sevost'yanova, V. V., Gulevskaya, V. I.

TITLE:

Dipole Moments of Some Halogen Polynitroalkanes

PERIODICAL:

Doklady Akademii nauk SSSR, 1960, Vol. 132, No. 6,
pp. 1376 - 1377

TEXT: To investigate the effect of an accumulation of nitro groups for polarity and chemical properties, the authors measured the dipole moments of the compounds $\text{CCl}(\text{NO}_2)_3$, $\text{CBr}(\text{NO}_2)_3$, $\text{CI}(\text{NO}_2)_3$, $\text{CH}_3\text{C}(\text{NO}_2)_3$, $\text{CH}_3\text{CH}(\text{NO}_2)_2$, $\text{CH}_3\text{CBr}(\text{NO}_2)_2$, $\text{CH}_3\text{CCl}(\text{NO}_2)_2$, and $\text{CH}_3\text{CHBr}(\text{NO}_2)$ in benzene at 25°C by the heterodyne method. Table 1 lists the investigated concentrations of substances, the sum of atomic and electron polarization, and the dipole moments. A comparison of the dipole moments of CH_3X and $\text{CX}(\text{NO}_2)_3$ (X = halogen) shows, for the halogen trinitromethanes, a small negative

Card 1/3

81417

Dipole Moments of Some Halogen Polynitroalkanes S/020/60/132/06/42/068
B004/B005

charge in the chlorine compound, a small positive charge in the bromine-, and a strong positive charge in the iodine compound. In the C-I bond, the iodine is the positive end of the dipole. This is explained by the fact that in the presence of three C-NO₂ bonds the interaction between I and C is not limited to the formation of the C⁺-I⁻ bond. Iodine acts here as a donor of its undivided p-electron pair, and effects a further shift of electrons, and a partial transition of nitro groups into nitrito groups. This explains the chemical properties of halogen trinitromethanes described in Refs. 2-5. Besides, the methyl group becomes more positive by the vicinity of the three NO₂ groups which circumstance explains the behavior of 1,1,1-trinitroethane which is easily transformed (Ref. 6) into 1,1-dinitroethylene. The dipole moments of some geminal dinitro compounds are calculated from the experimental data. Also here a considerable decrease of the dipole moment of the carbon-halogen bond results in agreement with the experiment. There are 1 table and 6 references: 2 Soviet, 1 British, 1 German, and 2 American.

Card 2/3

SHIDLOVSKAYA, A.N.; SYRKIN, Ya.K.

Dipole moments of certain imides and diphenylcyclopropenone.

Dokl. AN SSSR 139 no.2:418-419 J1 '61. (MIRA 14:7)

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im.
M.V. Lomonosova. 2. Chlen-korrespondent AN SSSR (for Syrkina).
(Propenone--Dipole moments)

L 7922-66 EWT(d)/EWT(1)/EWP(m)/EWT(m)/EPF(c)/ETC/ENG(m)/FCS(r)/T-2/FCS(k)/ETC(m)/
EWA(1) IJP(c) WW/JW/DJ

ACC NR: AP5026696

SOURCE CODE: UR/0258/65/005/005/0958/0967

AUTHOR: ^{44, 55}Shidlovskaya, I. I. (Moscow)

ORG: None

TITLE: Some problems in the theory of gas lubrication, taking temperature changes into account

SOURCE: Inzhenernyy zhurnal, v. 5, no. 5, 1965, 958-967

TOPIC TAGS: ^{21, 44, 55}thermodynamics, gas lubrication, Navier Stokes equation, ^{1, 44, 55}bound-ary layer problem

ABSTRACT: The equations governing gas lubrication are a simplified variant of the complete system of ^{16, 44, 55}Navier-Stokes equations, consisting of equations of motion continuity, energy, state, and the dependence of viscosity on temperature. On the basis of these equations, the author derives a system of expressions which are said to contain all the necessary data for the analytical determination of the pressure change in a gas lubricating layer, at an arbitrary value of the temperature factor, equal to T_1/T_0 . As an example, calculations are carried out for the case $H=0.5\pi$, $\mu = 0.3$, for different values of the temperature factor; the results are exhibited graphically. As in the more simple case of a lubricating

Card 1/2

UDC: 533.6.011

L 7922-66

ACC NR: AP5026696

layer between plane surfaces, a rise in the ratio of the temperature factor leads to a very noticeable increase in the maximum value of the pressure inside the layer. In addition, the curve indicates that with an increase in the temperature factor, the extreme points of the pressure distribution curve are shifted in the direction of motion of the lower surface. In the limiting case when the temperature factor approaches infinity, this curve is symmetrical with respect to the axis passing through the point of inflection for a stationary surface. Orig. art. has: 43 formulas and 6 figures

SUB CODE: ME, TD/ SUBM DATE: 02Jun65/ ORIG REF: 003/ OTH REF: 002

Card

202

L 27416-66 EWT(m)/I DJ

ACC NR: AP6008029

SOURCE CODE: UR/0019/66/011/001/0095/0107

AUTHOR: Shidlovskaya, I. I. (Moscow)

ORG: none

TITLE: Formulation and solution of problems of gas-lubricated bearings sliding under conditions of large transverse temperature gradients

SOURCE: Revue roumaine des sciences techniques. Serie de mecanique appliquees, v. 11, no. 1, 1966, 95-107

TOPIC TAGS: gas lubrication, pressure distribution, boundary layer, temperature distribution, differential equation, numerical solution

ABSTRACT: The governing equations for gas-lubricated bearings are derived, including effects of energy exchanges caused by large temperature gradients in the transverse direction. These equations are the usual three-dimensional boundary layer equations plus the energy equation

$$\frac{1}{2} \frac{\partial}{\partial y} \left(\mu \frac{\partial h}{\partial y} \right) + \frac{\partial p}{\partial t} + u \frac{\partial p}{\partial x} + w \frac{\partial p}{\partial z} + \mu \left(\frac{\partial u}{\partial y} \right)^2 + \mu \left(\frac{\partial w}{\partial y} \right)^2 = 0,$$

which reduces to the simple form

$$\frac{\partial}{\partial y} \left(\mu \frac{\partial h}{\partial y} \right) = 0,$$

Card 1/3

UDC: 539.6:621.82

L 27416-66

ACC NR: AP6008029

for small Mach numbers. The pressure gradient in the lubricant is calculated to yield (for small Mach numbers) the expression

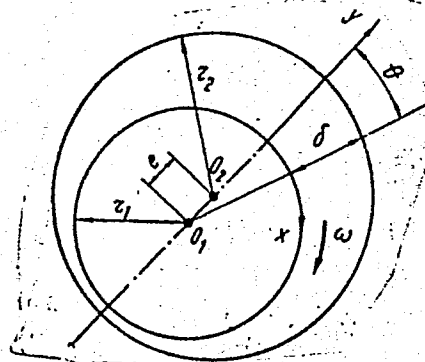
$$\frac{dp}{dx} = \mu_0 U \frac{A(\chi)}{\delta^2} \left(\frac{C_1}{\delta p} - 1 \right)$$

where A is given by

$$A(\chi) = \frac{n+2}{n(n+1)} \frac{\chi^{n+1} - 1 - (n+1)(\chi-1)}{\frac{\chi-1}{2} + \chi \left[\frac{(n+1)(\chi^n - 1)}{n(\chi^{n+1} - 1)} - 1 \right]}$$

For the radial bearing (see Fig. 1)

Fig. 1.



Card 2/3

L 27416-66
ACC NR: AP6008029

δ is expressed by $\delta = \delta_0 (1 + \eta \cos \theta)$,
and numerical as well as approximate analytic solutions are obtained. It is shown
that the nonisothermal nature of the lubricant has a significant influence on the
calculated pressure distribution and skin friction. Orig. art. has: 37 equations and
5 diagrams.

SUB CODE: 13, 20/ SUBM DATE: 18Jun65/ ORIG REF: 001/ OTH REF: 002

Card 3/3 *Sp*

SHIDLOVSKAYA, I. L.; TRUBETSKOVA, O. M.

Botany - Physiology

Study of daily periodicity of action of the root system, Trudy Inst. fiziol. rast.,
7, No. 2, 1951.

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

SHIDLOVSKAYA, I.I.

SHIDLOVSKAYA, I.I.: "Changes in the nitrogen and phosphorus compounds in the seeds of individual strata of peas, Moscow 572 variety, during the process of maturation". Moscow, 1955. Moscow State Pedagogical Institute imeni V.I. Lenin. (Dissertations for the Degree of Candidate of Biological Sciences).

SO: Knizhnaya letopis' No 45, 5 November 1955.. Moscow.

AUTHORS: Rakitin, Yu. V., Shidlovskaya, I. L. SOV/20-122-1-39/44

TITLE: Detoxication of Some Synthetic Compounds in Plants (O detoksikatsii nekotorykh sinteticheskikh veshchestv v rastenii)

PERIODICAL: Doklady Akademii nauk SSSR, 1958, Vol 122, Nr 1, pp 142-145 (USSR)

ABSTRACT: The present experimental evidences lead to the conclusion that toxic substances, having entered into the interior of plants, undergo essential transformations, which are accompanied by a variation of the toxicity stage (Refs 1-4). According to their nature, the toxicity of these compounds may increase, but also decrease (Refs 1,2). If the dosage of the toxic source material has not been excessively high, the increase of the toxicity is just a temporary manifestation, since these compounds experience a detoxication with increasing toxicity (Refs 2,5). With other words, a transformation of the toxins into some less toxic compounds occurs. The authors regard the detoxication as the result of the active resistance of the organism against the noxious influence of the toxins (Refs 1-4). The detoxication was investigated in the laboratory of the authors on the following substances: ethyl alcohol, ethylene chlorohydrin, ammonium

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Detoxication of Some Synthetic Compounds in Plants

thiocyanate, thiourea, α -naphthyl acetic acid (ANA), 2,4-dichlorophenoxy-acetic acid, 2,4,5-trichlorophenoxy-acetic acid (2,4,5-T), carbamates, maleic acid hydrazide and others. From the results given in table 1 and 2 it can be concluded: The compounds introduced in the germs of wheat or radishes in adequate (not herbicide) doses (2,4,5-T and amino acids) are detoxicated in the interior of the plant and by this lose their physiological activity. The wheat germs are superior to the radishes regarding their resistance against the compounds in question and the velocity of detoxication. All tested α -naphthyl-acetyl-aminoacids are less toxic than ANA. In this way, if ANA is able to combine with the aminoacids in the plants, this transformation might be considered as a mean to reduce the toxicity of ANA. The observed intensification of the growth process is a consequence of the temporary depression of growth by the discussed toxins.

Card 2/2

There are 2 tables and 9 references, 8 of which are Soviet.

PRESENTED: May 31, 1958, by A. L. Kursanov, Member, Academy of Sciences, USSR

SUBMITTED: May 29, 1958

RAKITIN, Yu. V.; MEL'NIKOV, N.N.; SHIDLOVSKAYA, I.L.; BOKAREV, K.S.

Structure and physiological activity of some 2,4,5-trichlorophenoxy-
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1. K.A.Timiriachev Institute of Plant Physiology, U.S.S.R. Academy
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(Growth promoting substances)

(Growth inhibiting substances)

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Treatment of seeds before sowing. Itogi nauki: Biol.nauki no.2:
356-382 '58. (MIRA 14:4)

(Seeds) (Plants, Effect of chemicals on)

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Differentiation with respect to parameter in solving nonlinear
differential equations. Dokl.AN SSSR 107 no.2:213-216 Mr '56.
(MIRA 9:7)

1.Leningradskiy gosudarstvennyy universitet imeni A.A.Zhdanova.
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(Differential equations)

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~~Using the~~ parameter-differentiation method for the solution of non-linear equations in Banach spaces. Uch. zap. LGU no.271:3-17 '58.
(MIRA 12:5)

(Differential equations, Partial)

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AUTHOR: Shidlovskaya, N.A.

TITLE: The application of the differentiation with respect to a parameter for the solution of non-linear equations in Banach spaces

PERIODICAL: Referativnyy zhurnal. Matematika, no. 2, 1960, 135-136, abstract 1873. (Uch. zap. LGU, 1958, no. 271, 3 - 17)

TEXT: Let X and Y be spaces of the type B . The author considers the non-linear functional equation

$$F(\lambda, x) = 0, \quad (1)$$

where $x \in X$, $F(\lambda, x) \in Y$, $\lambda \in [0, 1]$ is a numerical parameter. It is assumed that the solution x_0 of (1) is known for $\lambda = 0$. Differentiating (1) with respect to λ (by understanding x as a function of λ) then, with respect to $x(\lambda)$ one can obtain the abstract differential equation

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The application of the ...

$$\frac{dx}{d\lambda} = - \left[\frac{\partial F(\lambda, x)}{\partial x} \right]^{-1} \frac{\partial F(\lambda, x)}{\partial \lambda}, \quad (2)$$

$$x(0) = x_0.$$

It can be integrated with the normal difference methods, where for the calculation of the right side a linear equation must be solved in every point. The construction of the beginning of a table is considered. Especially one may construct $x(\lambda_k)$ by solving (1) for $\lambda = \lambda_k$ according to the method of Newton and taking it as the initial approximation $x(\lambda_{k-1})$. Restricting oneself for every value λ_k to the first approximation according to the method of Newton then one obtains the "multi-step method of Newton". It is shown that the integration of (2) according to the method of Euler and the "multi-step method of Newton" yield errors of the same order. The author considers the application of

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The application of the ...

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the differentiation with respect to the parameter for the solution of
non-linear boundary value problems for ordinary differential equations.
A numerical example is given.

[Abstracter's note : Complete translation.]

Card 3/3

X

MININ, I.N.; PILIPOSYAN, A.G.; SHIDLOVSKAYA, N.A.

Tables of Ambartsumian's functions for anisotropic scattering.
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Predsedatele Soveta Ministrov Pol'skoy Narodnoy Respubliki (for
Shidlovskaya). 4. Zamestitel' ministra promyshlennosti tovarov
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Respubliki Yugoslavii (for Rekhter).

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Pirogoff's triangle and course of the lingual artery."
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1. Adres avtorov: Moskva, ul. kazakova, 18, Institut fizicheskoy
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(MLRA 7:3)

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The Preparation of Deoxygenated Water Gidrokhim. Materialy, No 20, 1953, 98-100

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